

CLAIMS

1. A process for preparing architectural silicone membranes by coating an architectural textile with at least one silicone elastomer layer, characterized in that it comprises the following stages:
- a stage of deposition, on said architectural textile, of at least one layer of an aqueous polyorganosiloxane (POS) emulsion which can be crosslinked to give an elastomer by polyaddition reactions, which emulsion comprises:
    - (A) at least one POS exhibiting, per molecule, at least two unsaturated functional groups of C<sub>2</sub>-C<sub>6</sub> alkenyl type bonded to silicon,
    - (B) at least one POS exhibiting, per molecule, at least three hydrogen atoms bonded to silicon,
    - (C) at least one special adhesion promoter chosen from the group of compounds consisting of protective hydrocolloids, hydroxylated silanes and/or POSs carrying, per molecule, at least one hydroxyl group and at least one aminated and salified functional group, and their mixtures,
- with the condition according to which the percentage by weight of the adhesion promoter (C) with respect to the silicone phase is strictly within the range from 0.005 to 10%, preferably from 0.03 to 5% and more preferably still from 0.05 to 4%,
- (D) at least one catalyst,
  - (E) at least one surfactant,
  - (F) optionally at least one POS resin comprising at least two alkenyl groups,
  - (G) at least one crosslinking inhibitor,
  - (H) optionally at least one pH regulating agent,
  - (I) optionally at least one formulation additive,
  - (J) optionally a filler,
  - (K) and water,

- and then a crosslinking stage, so as to obtain an architectural textile coated with an elastomer layer, so that the ratio of the weight of the coating, expressed on a dry basis, to the weight of the architectural textile is less than 0.2 and preferably between 0.05 and 0.11.

2. The process as claimed in claim 1, characterized in that the deposition stage is a coating stage.

3. The process as claimed in claim 2, characterized in that the coating is carried out by knife, in particular by knife over roll, floating knife and knife over carpet, by padding, in particular by squeezing between two rolls, or also by licking roll, rotary machine, reverse roll, by transfer, by screen printing, by heliography or by spraying.

4. The process as claimed in any one of claims 1 to 3, characterized in that the architectural textile comprises fibers and/or yarns chosen from the group of materials consisting of: glass, silica, metals, ceramic, silicon carbide, carbon, boron, natural fibers, such as cotton, wool, hemp or flax, artificial fibers, such as viscose, or cellulose fibers, synthetic fibers, such as polyesters, polyamides, polyacrylics, chlorofibers, polyolefins, synthetic rubbers, poly(vinyl alcohol), aramids, fluorofibers and phenolics.

5. The process as claimed in any one of claims 1 to 4, characterized in that the architectural textile, when it is chosen from inorganic materials, has, once coated, a Gross Calorific Value (GCV) of less than or equal to 4200 kJ/kg.

6. An architectural textile or architectural

silicone membrane obtained from an architectural textile:

→ by deposition on the latter of at least one layer of an aqueous polyorganosiloxane (POS) emulsion which can be crosslinked to give an elastomer by polyaddition reactions and which is suitable for the impregnation of architectural textiles and which comprises:

(A) at least one POS exhibiting, per molecule, at least two unsaturated functional groups of C<sub>2</sub>-C<sub>6</sub> alkenyl type bonded to silicon,

(B) at least one POS exhibiting, per molecule, at least three hydrogen atoms bonded to silicon,

(C) at least one special adhesion promoter chosen from the group of compounds consisting of protective hydrocolloids, hydroxylated silanes and/or POSs carrying, per molecule, at least one hydroxyl group and at least one aminated and salified functional group, and their mixtures,

with the condition according to which the percentage by weight of the adhesion promoter (C) with respect to the silicone phase is strictly within the range from 0.005 to 10%, preferably from 0.03 to 5% and more preferably still from 0.05 to 4%,

(D) at least one catalyst,

(E) at least one surfactant,

(F) optionally at least one POS resin comprising at least two alkenyl groups,

(G) optionally at least one crosslinking inhibitor,

(H) optionally at least one pH regulating agent,

(I) optionally at least one formulation additive,

(J) optionally a filler,

(K) and water,

→ and then by crosslinking the POSs present in the emulsion deposited on the textile.

7. The membrane as claimed in claim 6, characterized in that it is composed of a textile comprising fibers and/or yarns chosen from the group of materials consisting of: glass, silica, metals, ceramic, silicon carbide, carbon, boron, natural fibers, such as cotton, wool, hemp or flax, artificial fibers, such as viscose, or cellulose fibers, synthetic fibers, such as polyesters, polyamides, polyacrylics, chlorofibers, polyolefins, synthetic rubbers, poly(vinyl alcohol), aramids, fluorofibers and phenolics.

8. The membrane as claimed in claim 6 or 7, characterized in that its Gross Calorific Value (GCV) is less than or equal to 4200 kJ/kg and preferably less than or equal to 2500 kJ/kg.

9. The membrane as claimed in one of claims 6 to 8 or obtained by the process as claimed in one of claims 1 to 5, characterized in that it is intended for interior and exterior architecture or solar protection.

10. The membrane as claimed in claim 9, characterized in that it exhibits a weight of less than 1200 g/m<sup>2</sup> and preferably of between 100 and 500 g/m<sup>2</sup>.